





RE: J0822-4076  
Lot 50 Liberty Meadows

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Benjamin Stout Real Estate Project Name: J0822-4076  
Lot/Block: 50 Model: Cypress  
Address: 92 Melvill Lane Subdivision: Liberty Meadows  
City: State: NC

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.3  
Wind Code: ASCE 7-10 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E16497598	A1	12/23/2021
2	E16497599	A1GE	12/23/2021
3	E16497600	A2	12/23/2021
4	E16497601	A3	12/23/2021
5	E16497602	B1	12/23/2021
6	E16497603	B1GE	12/23/2021
7	E16497604	M1	12/23/2021
8	E16497605	M2	12/23/2021
9	E16497606	V1GE	12/23/2021
10	E16497607	V2GE	12/23/2021
11	E16497608	V3	12/23/2021
12	E16497609	V4	12/23/2021
13	E16497610	V5	12/23/2021
14	E16497611	V6	12/23/2021
15	E16497612	V7	12/23/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

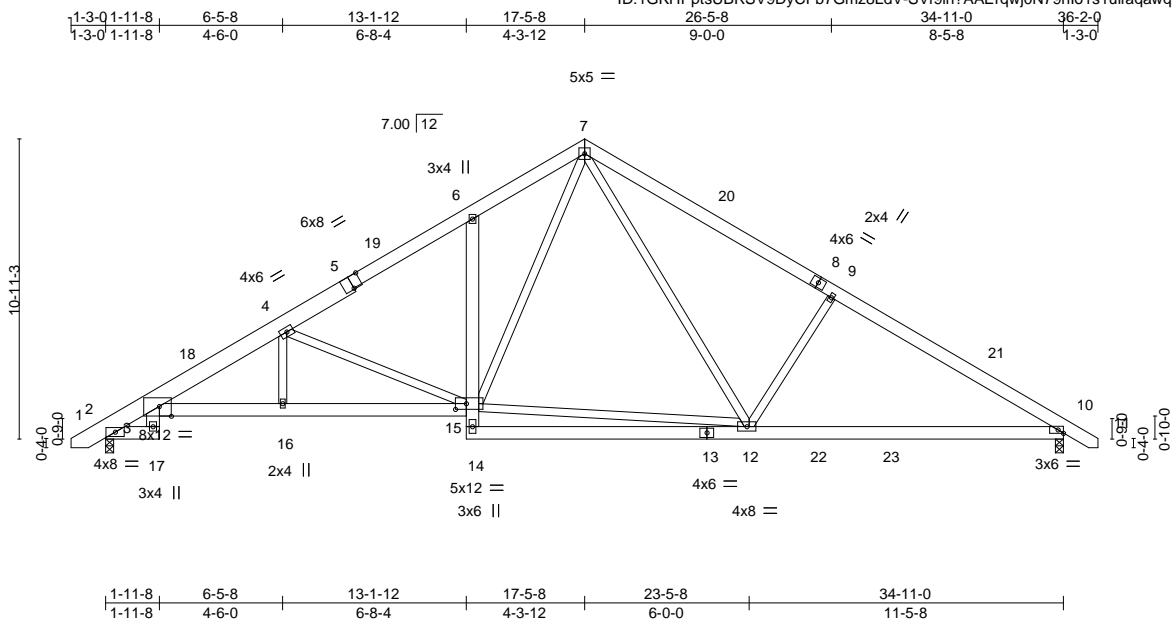


December 23, 2021

Job J0822-4076	Truss A1	Truss Type ROOF SPECIAL	Qty 8	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497598
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:40 2021 Page 1  
ID:1GKHPPtsUBRSV9DyCFb7Gmz8LdV-SVf9lh?AAErqwj0N79nlo1s1ulfaqawq9pfzSy66qX



Scale = 1:79.0

Plate Offsets (X,Y)-- [3:0-5-4,Edge], [5:0-4-0,Edge], [15:0-4-12,0-2-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.46	Vert(LL) -0.14	10-12	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.57	Vert(CT) -0.29	10-12	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Horz(CT) 0.16	10	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.09	16	>999	240	Weight: 281 lb	FT = 20%
	Code IRC2015/TPI2014							

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1 *Except*	TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.
1-5: 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x6 SP No.1	
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=259(LC 10)  
 Max Uplift 2=93(LC 12), 10=95(LC 13)  
 Max Grav 2=1450(LC 1), 10=1459(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-944/196, 3-4=-2689/491, 4-6=-1959/432, 6-7=-1921/538, 7-9=-1933/492, 9-10=-2149/442  
 BOT CHORD 3-16=-332/2550, 15-16=-329/2548, 6-15=-254/197, 12-14=-2/353, 10-12=-250/1758  
 WEBS 4-15=-1030/258, 12-15=-10/881, 7-15=-228/942, 9-12=-550/316, 7-12=-143/827

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-4 to 3-5-9, Interior(1) 3-5-9 to 17-5-8, Exterior(2) 17-5-8 to 21-10-5, Interior(1) 21-10-5 to 36-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



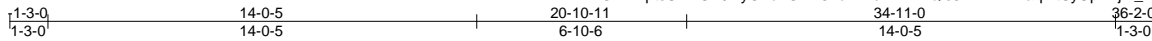
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Job J0822-4076	Truss A1GE	Truss Type GABLE	Qty 2	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497599
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Comtech, Inc. Fayetteville, NC - 28314,

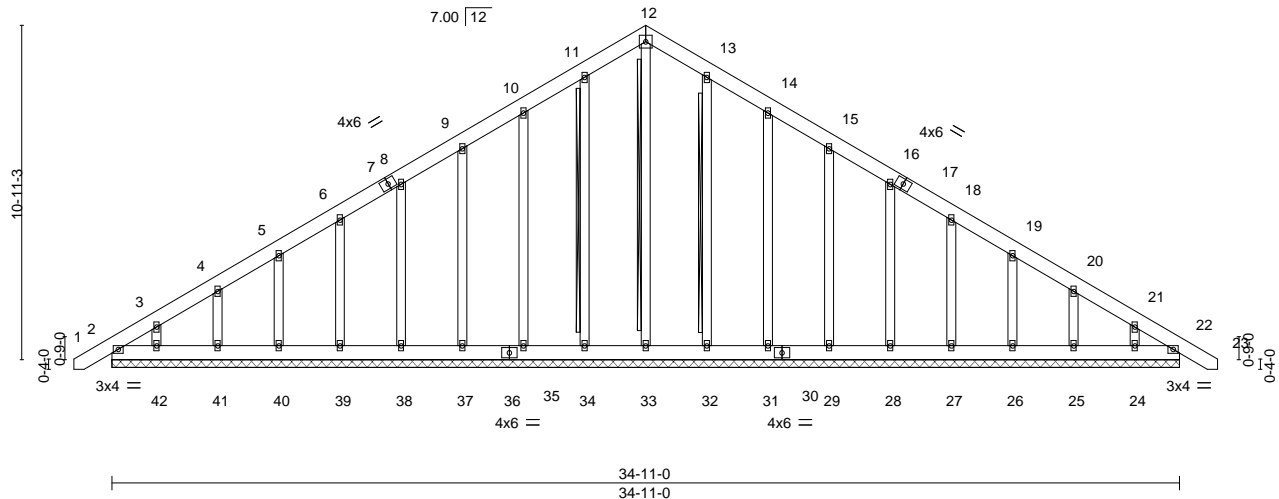
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:42 2021 Page 1

ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-PunvAN1Qis5YA1AmEaqmtSyUpZTjIh\_7c78gxKy66qV



5x5 =

Scale = 1:70.9



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.05	Vert(LL) -0.00 22 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 22 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.01 22 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			Weight: 312 lb FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 12-33, 11-34, 13-32  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.**

All bearings 34-11-0.  
 (lb) - Max Horz 2=-259(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 22  
 Max Grav All reactions 250 lb or less at joint(s) 2, 33, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-252/208, 10-11=-227/254, 11-12=-257/293, 12-13=-257/293, 13-14=-227/254

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3) -1-1-0 to 3-5-8, Exterior(2) 3-5-8 to 17-5-8, Corner(3) 17-5-8 to 21-10-5, Exterior(2) 21-10-5 to 36-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 29, 28, 27, 26, 25, 24, 22.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



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818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Lot 50 Liberty Meadows	E16497600
J0822-4076	A2	COMMON	7	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:43 2021 Page 2  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-t4KHnj12T9DPnAlyoHL?QgUZZzcG15EGmuDUny66qU

**LOAD CASE(S)** Standard

- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-5=-20, 5-9=-20, 2-20=-20, 20-21=-80, 21-22=-20, 22-23=-80(F=-60), 23-24=-20, 24-25=-80, 8-25=-20
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-56, 2-5=-61, 5-8=-43, 8-9=-38, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20  
Horz: 1-2=6, 2-5=11, 5-8=7, 8-9=12
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-38, 2-5=-43, 5-8=-61, 8-9=-56, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20  
Horz: 1-2=12, 2-5=7, 5-8=-11, 8-9=-6
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-5=-36, 5-8=-45, 8-9=-40, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20  
Horz: 1-2=-19, 2-5=-14, 5-8=5, 8-9=10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-5=-45, 5-8=-36, 8-9=-31, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20  
Horz: 1-2=-10, 2-5=-5, 5-8=14, 8-9=19
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-50, 5-9=-20, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-20, 5-9=-50, 2-20=-20, 20-21=-65, 21-22=-20, 22-23=-65(F=-45), 23-24=-20, 24-25=-65, 8-25=-20

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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Job J0822-4076	Truss A3	Truss Type COMMON	Qty 4	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497601
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8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:44 2021 Page 1  
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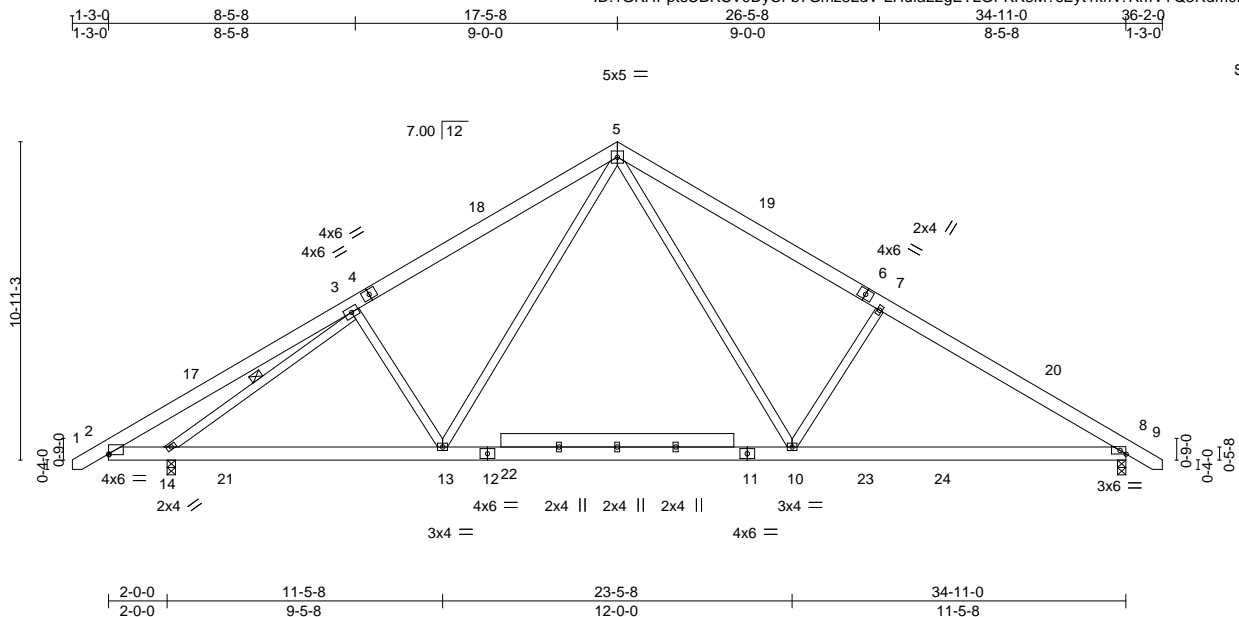


Plate Offsets (X,Y)-- [2-0-0,0,0-5]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.40	in (loc) l/defl L/d Vert(LL) -0.17 13-14 >999 360	MT20	244/190
TCDL 10.0	1.15 Lumber DOL	BC 0.64	Vert(CT) -0.26 8-10 >999 240		
BCLL 0.0 *	NO Rep Stress Incr	WB 0.54	Horz(CT) 0.04 8 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04 10-13 >999 240	Weight: 265 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-2-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 2-14.  
WEBS 1 Row at midpt 3-14

**REACTIONS.**

(size) 8=0-3-8, 14=0-3-8  
Max Horz 14=-259(LC 10)  
Max Uplift 8=-95(LC 13), 14=-100(LC 12)  
Max Grav 8=1455(LC 20), 14=1730(LC 19)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-616/193, 3-5=-1780/419, 5-7=-1885/462, 7-8=-2083/408  
BOT CHORD 2-14=-48/484, 13-14=-154/1683, 10-13=0/1163, 8-10=-215/1691  
WEBS 5-10=-142/900, 7-10=-543/313, 5-13=-86/822, 3-13=-339/256, 3-14=-1761/543

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-1-0 to 3-3-13, Interior(1) 3-3-13 to 17-5-8, Exterior(2) 17-5-8 to 21-10-5, Interior(1) 21-10-5 to 36-0-0 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 14.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Load case(s) 2, 3, 18, 19, 20, 21, 22, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60, 5-9=-60, 2-8=-20
- Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-50, 5-9=-50, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20
- Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-5=-20, 5-9=-20, 2-21=-40, 21-22=-100(F=-60), 8-22=-40



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Continued on page 2

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Liberty Meadows	E16497601
J0822-4076	A3	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:45 2021 Page 2  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-pTS2oO3J?nT71UvLwiNTV5ZvamKfVyoZi5NKYfy66qS

**LOAD CASE(S) Standard**

- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-5=-20, 5-9=-20, 2-21=-20, 21-22=-80(F=-60), 22-23=-20, 23-24=-80, 8-24=-20
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-56, 2-5=-61, 5-8=-43, 8-9=-38, 2-14=-3, 14-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20  
Horz: 1-2=6, 2-5=11, 5-8=7, 8-9=12
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-38, 2-5=-43, 5-8=-61, 8-9=-56, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20  
Horz: 1-2=12, 2-5=7, 5-8=-11, 8-9=-6
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-31, 2-5=-36, 5-8=-45, 8-9=-40, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20  
Horz: 1-2=-19, 2-5=-14, 5-8=5, 8-9=10
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-40, 2-5=-45, 5-8=-36, 8-9=-31, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20  
Horz: 1-2=-10, 2-5=-5, 5-8=14, 8-9=19
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-50, 5-9=-20, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-20, 5-9=-50, 2-21=-20, 21-22=-65(F=-45), 22-23=-20, 23-24=-65, 8-24=-20

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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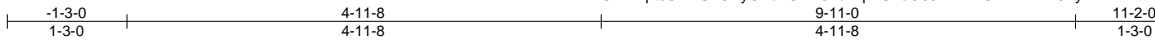
818 Soundside Road  
Edenton, NC 27932



Job J0822-4076	Truss B1	Truss Type COMMON	Qty 4	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497602
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:45 2021 Page 1



Scale = 1:22.7

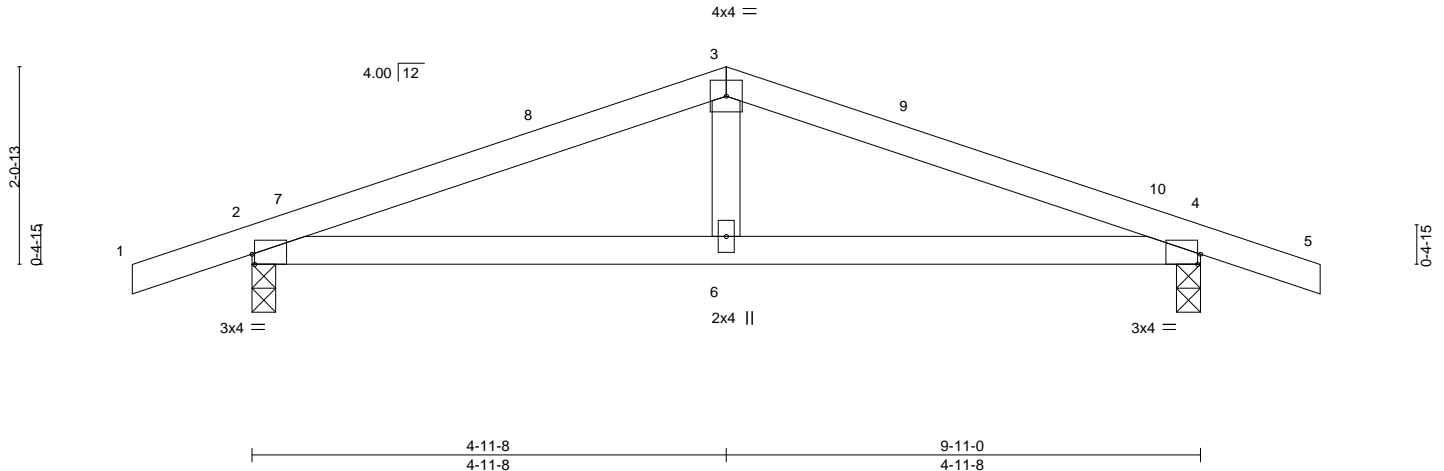


Plate Offsets (X,Y)--	[2:0-0-6,Edge], [4:0-0-6,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) 0.04 4-6 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.03 2-6 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.05	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 37 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
WEBS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 7-8-15 oc bracing.

**REACTIONS.** (size) 2=0-3-0, 4=0-3-0  
Max Horz 2=-25(LC 17)  
Max Uplift 2=-191(LC 8), 4=-191(LC 9)  
Max Grav 2=469(LC 1), 4=469(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-654/750, 3-4=-654/750  
BOT CHORD 2-6=-624/567, 4-6=-624/567  
WEBS 3-6=-293/227

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 4-11-8, Exterior(2) 4-11-8 to 9-4-5, Interior(1) 9-4-5 to 11-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=191, 4=191.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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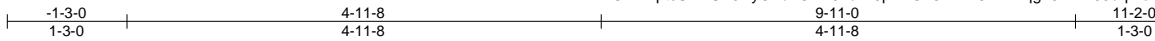


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss B1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497603
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:52 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-6pNhGn8iLwM8NZxhqq?6HZM99bqmeELbvhZBily66qL



Scale = 1:22.7

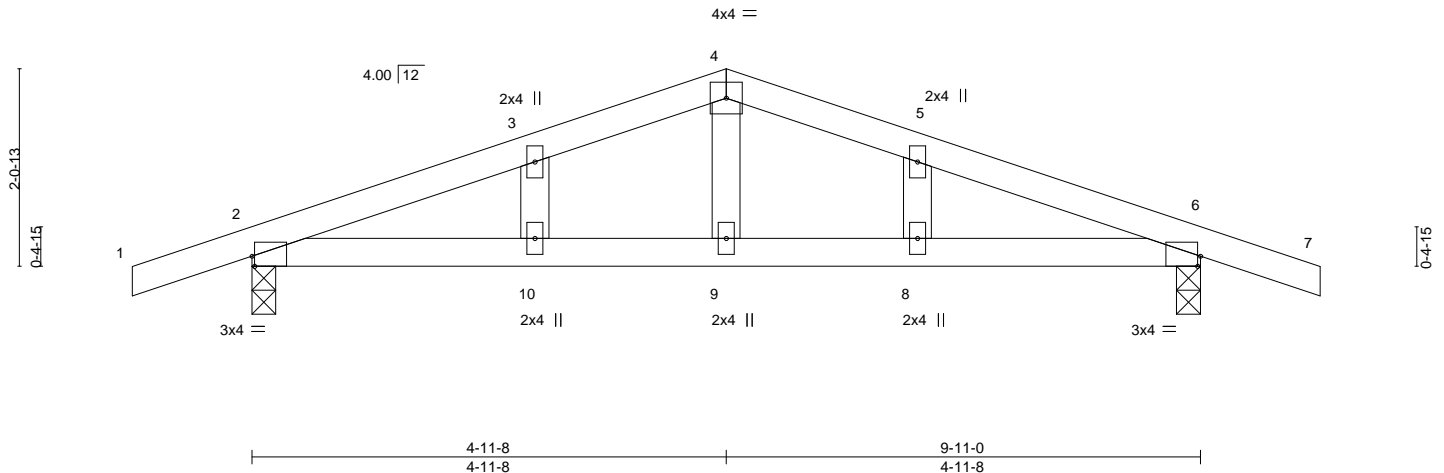


Plate Offsets (X,Y)--	[2:0-0-6,Edge], [6:0-0-6,Edge]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) 0.04 8 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.23	Vert(CT) -0.04 10 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) -0.01 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 39 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 7-6-4 oc bracing.

**REACTIONS.**

(size) 2=0-3-0, 6=0-3-0  
 Max Horz 2=42(LC 13)  
 Max Uplift 2=271(LC 8), 6=271(LC 9)  
 Max Grav 2=469(LC 1), 6=469(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-655/778, 3-4=-607/789, 4-5=-607/790, 5-6=-655/778  
 BOT CHORD 2-10=-660/573, 9-10=-660/573, 8-9=-660/573, 6-8=-660/573  
 WEBS 4-9=-291/185

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=271, 6=271.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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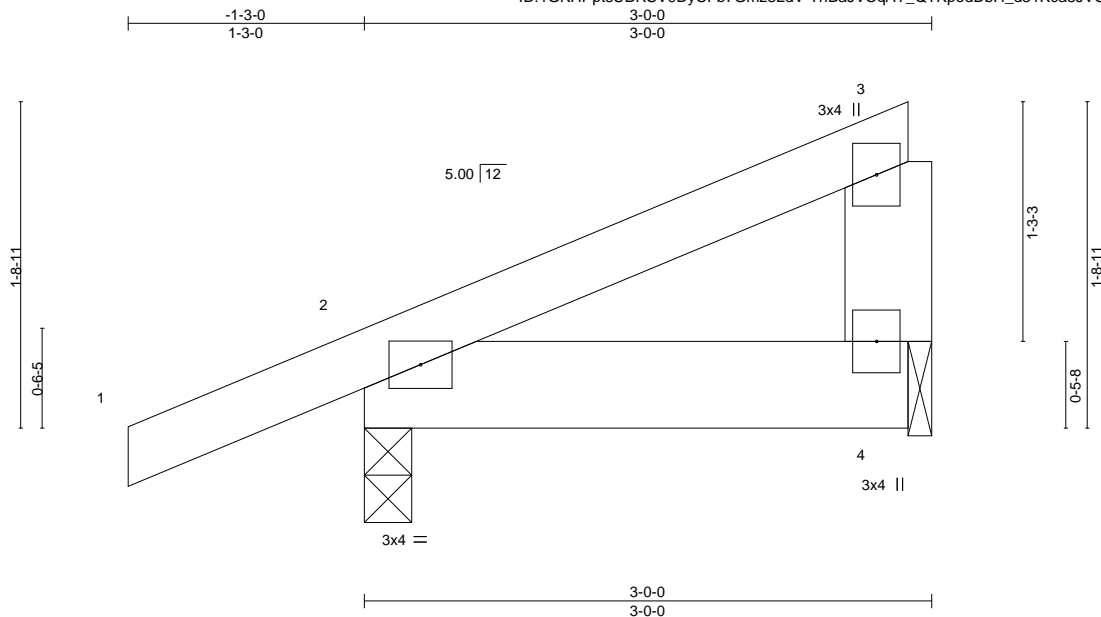


818 Soundside Road  
 Edenton, NC 27932

Job J0822-4076	Truss M1	Truss Type MONOPITCH	Qty 7	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497604
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Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:57 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-TnBaJVCqAT\_QTKpedDbH\_d31KcaJVGK3yHyzy66qG



Scale = 1:11.5

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.02	Vert(LL) -0.00 2 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.00 2-4 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.00 2-4 >999 240	Weight: 16 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-0, 4=0-1-8  
Max Horz 2=76(LC 12)  
Max Uplift 2=-98(LC 8), 4=-38(LC 8)  
Max Grav 2=210(LC 1), 4=84(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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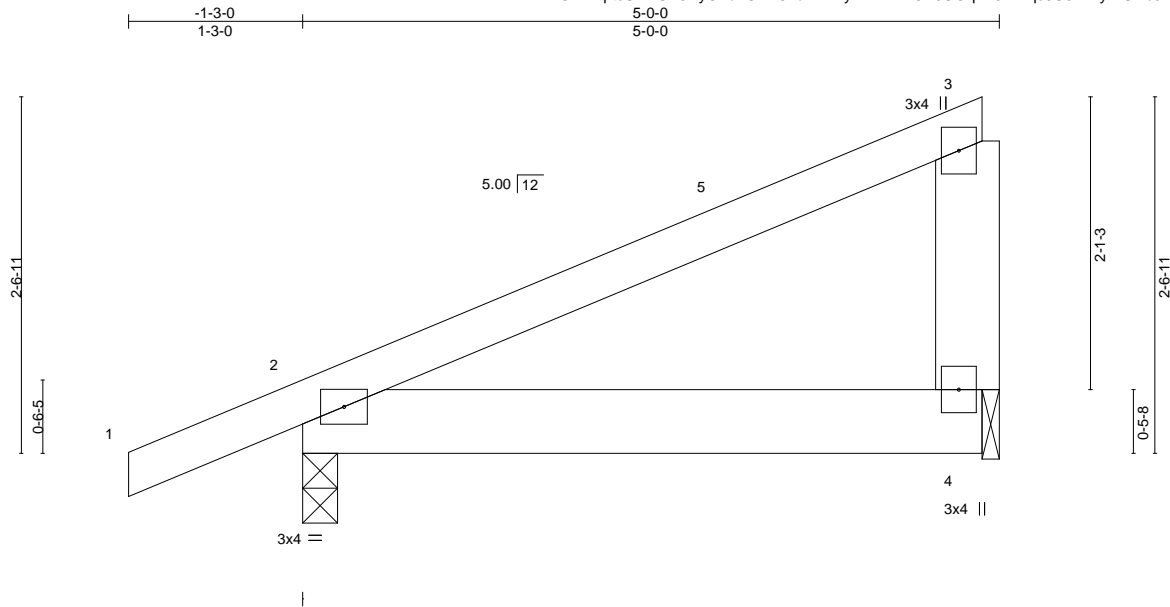


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss M2	Truss Type MONOPITCH	Qty 4	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497605
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:03:58 2021 Page 1  
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Scale = 1:15.6

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	-0.01	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.01	2-4	>999	Weight: 26 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x6 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-0, 4=0-1-8  
Max Horz 2=79(LC 12)  
Max Uplift 2=-83(LC 8), 4=-57(LC 8)  
Max Grav 2=281(LC 1), 4=174(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -1-3-0 to 3-1-13, Interior(1) 3-1-13 to 4-9-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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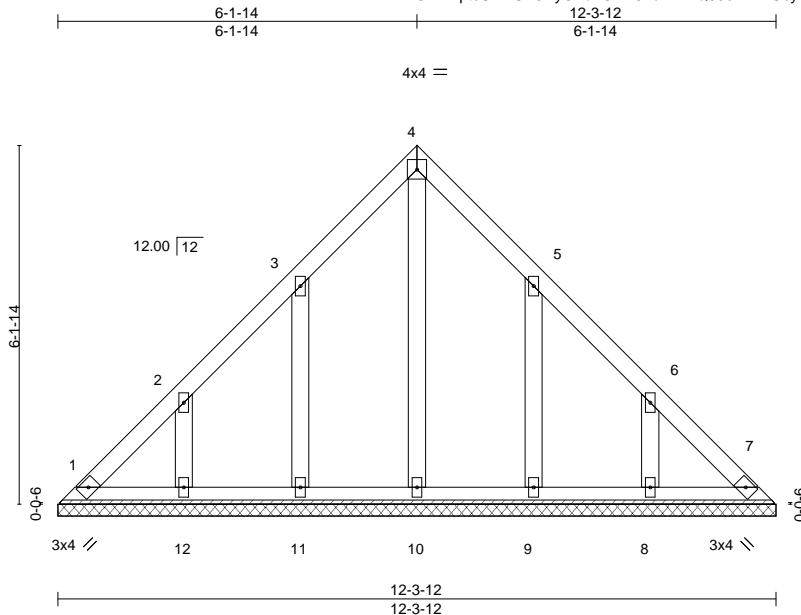


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss V1GE	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497606
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Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:01 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-LYQ59sFLEhUsyx7Ps3gD8TEjzDy2FIDw\_aFA6ky66qC



Scale = 1:37.2

Plate Offsets (X,Y)-- [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0 Plate Grip DOL 1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 66 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 12-3-12.  
(lb) - Max Horz 1=174(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=143(LC 12), 12=148(LC 12), 9=142(LC 13), 8=149(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=143, 12=148, 9=142, 8=149.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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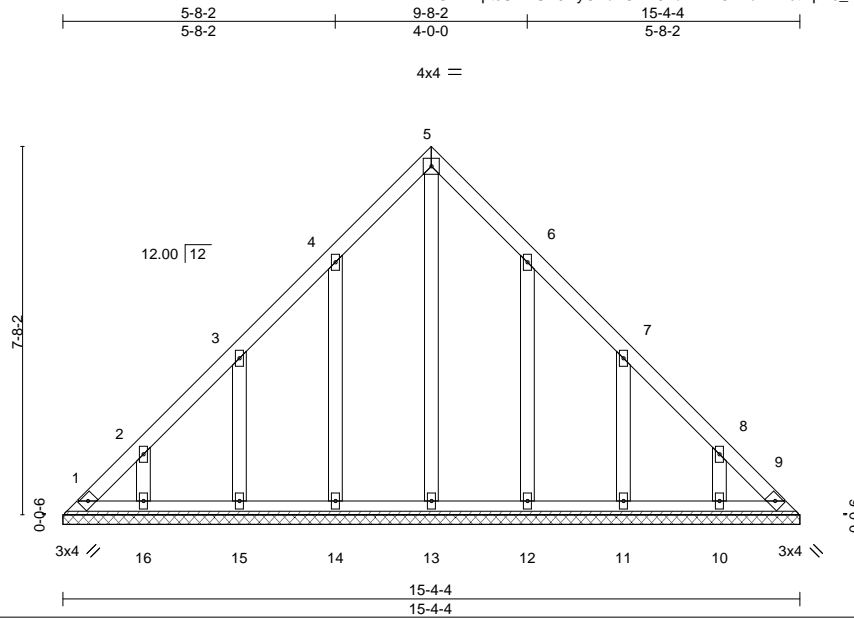


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss V2GE	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497607
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:04 2021 Page 1  
ID:1GKHPtsUBRSV9DyCFb7Gmz8LdV-m76DnuIDWctRpPs\_XCDwm5sEFQzISeFMgYTqj3y66q9



Scale = 1:45.2

Plate Offsets (X,Y)-- [6:0-0-0,0-0-0], [7:0-0-0,0-0-0], [8:0-0-0,0-0-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 92 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 15-4-4.  
(lb) - Max Horz 1=220(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=142(LC 12), 15=143(LC 12), 16=128(LC 12), 12=140(LC 13), 11=144(LC 13), 10=128(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=290/181, 8-9=255/169

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=142, 15=143, 16=128, 12=140, 11=144, 10=128.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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818 Soundside Road  
Edenton, NC 27932



Job J0822-4076	Truss V3	Truss Type VALLEY	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497608
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:06 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-iWD\_CaJU2E782j?NecForWxYJEdJwZ4f7syxoxy66q7

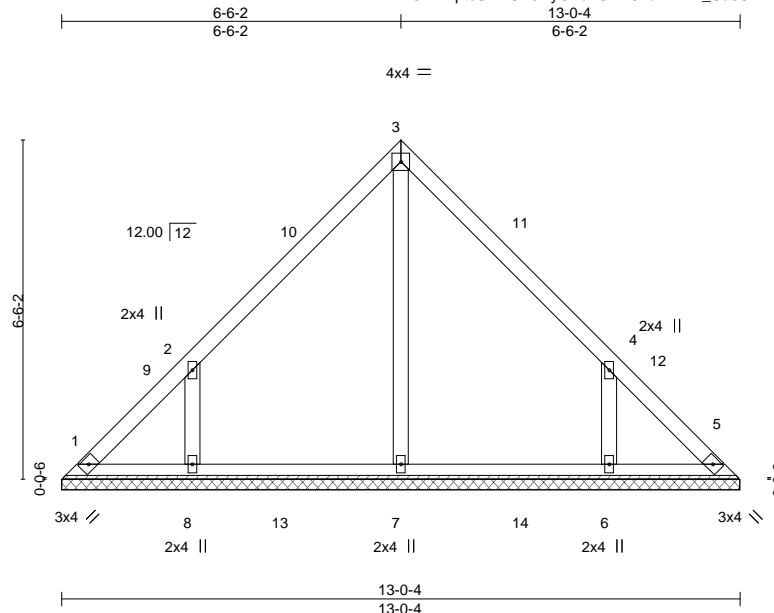


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 60 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 OTHERS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 13-0-4.  
 (lb) - Max Horz 1=148(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=163(LC 12), 6=162(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=384(LC 19), 8=374(LC 19), 6=374(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 2-8=-358/290, 4-6=-358/290

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 6-6-2, Exterior(2) 6-6-2 to 10-10-15, Interior(1) 10-10-15 to 12-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=163, 6=162.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23,2021

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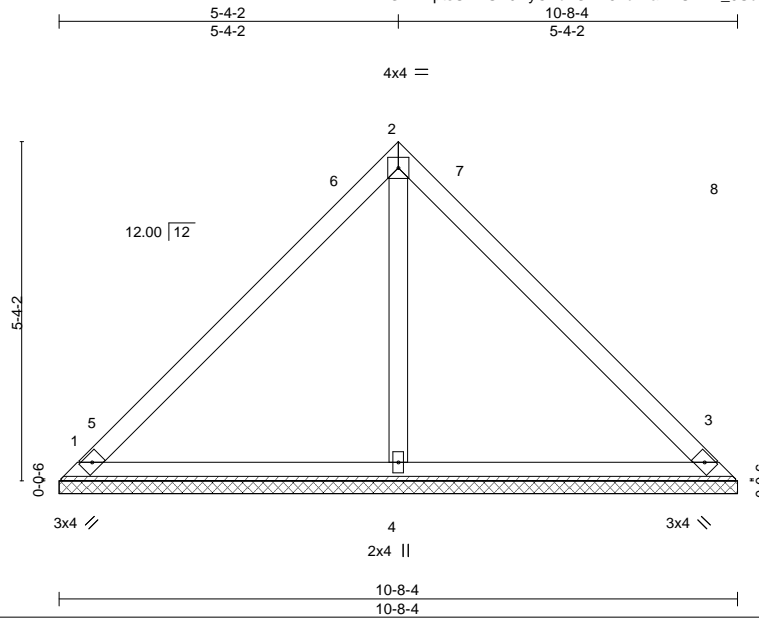


818 Soundside Road  
 Edenton, NC 27932

Job J0822-4076	Truss V4	Truss Type VALLEY	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497609
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:10 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-aHTU2xM\_6SdaXKJ8tSKK0M6C8r\_gsMAF2Uw8xy66q3



Scale = 1:34.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.28	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.19	Vert(LL) n/a - n/a 999		
BCDL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) n/a - n/a 999		
BCLL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 44 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

**REACTIONS.**

(size) 1=10-8-4, 3=10-8-4, 4=10-8-4  
Max Horz 1=120(LC 8)  
Max Uplift 1=30(LC 13), 3=30(LC 13)  
Max Grav 1=226(LC 1), 3=226(LC 1), 4=346(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-4-2, Exterior(2) 5-4-2 to 9-8-15, Interior(1) 9-8-15 to 10-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3'-6"-0 tall by 2'-0"-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

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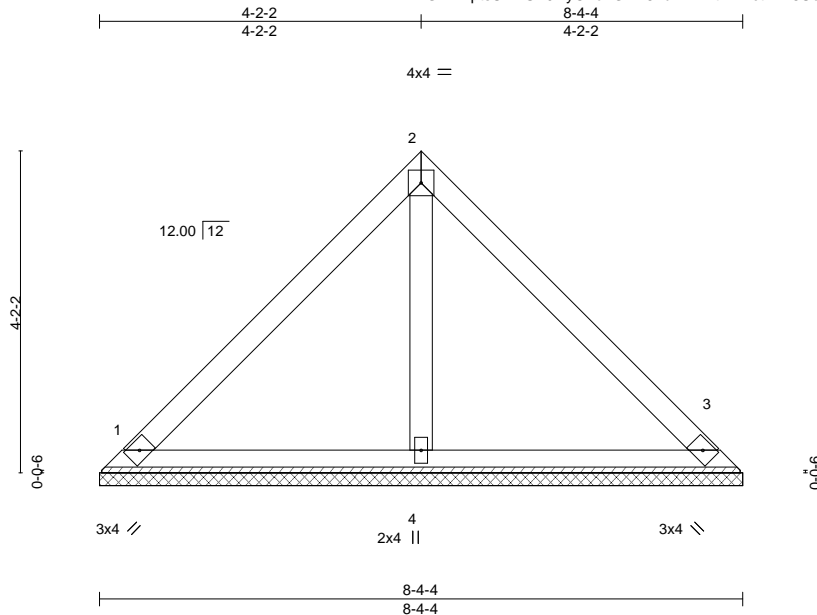


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss V5	Truss Type VALLEY	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497610
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:11 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-2T1tFHNctmlR8UuKRArZYaeOJFL6bq9OH8giT9y66q2



Scale = 1:28.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 34 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=8-4-4, 3=8-4-4, 4=8-4-4  
Max Horz 1=92(LC 9)  
Max Uplift 1=33(LC 13), 3=33(LC 13)  
Max Grav 1=186(LC 1), 3=186(LC 1), 4=239(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23,2021

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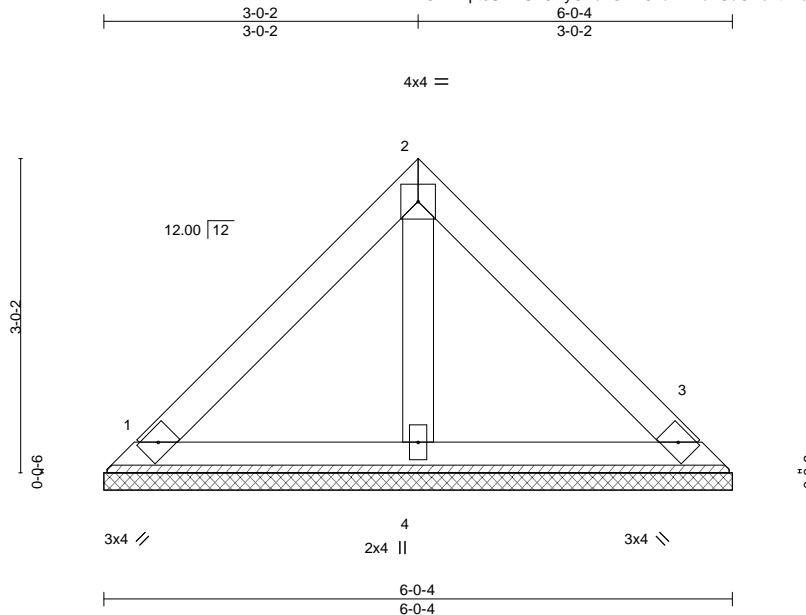


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss V6	Truss Type VALLEY	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497611
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:12 2021 Page 1  
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Scale = 1:20.8

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.12	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 24 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=6-0-4, 3=6-0-4, 4=6-0-4  
Max Horz 1=64(LC 9)  
Max Uplift 1=23(LC 13), 3=23(LC 13)  
Max Grav 1=129(LC 1), 3=130(LC 1), 4=166(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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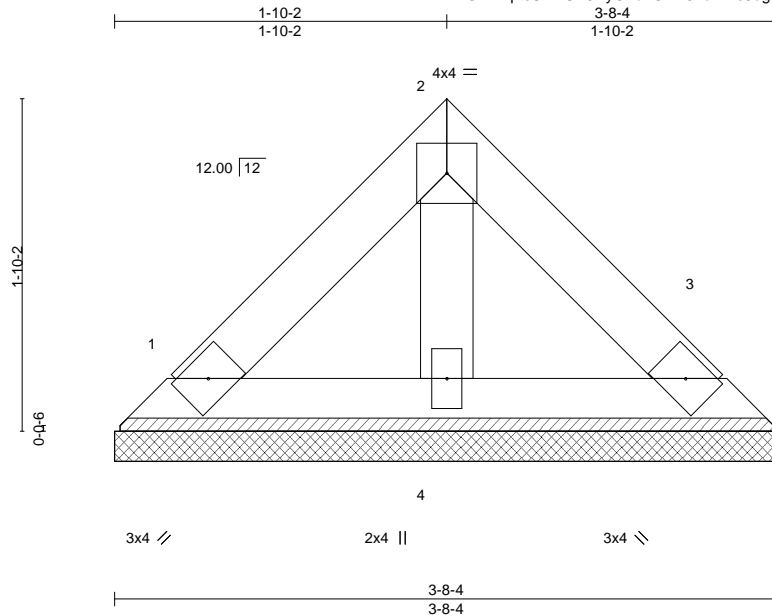


818 Soundside Road  
Edenton, NC 27932

Job J0822-4076	Truss V7	Truss Type VALLEY	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497612
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:13 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-?s8dgzPtPN?9On2jZat1e?knA32?3k7hkS9pY1y66q0



Scale: 1"=1'

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 14 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1  
OTHERS 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=3-8-4, 3=3-8-4, 4=3-8-4  
Max Horz 1=36(LC 8)  
Max Uplift 1=13(LC 13), 3=13(LC 13)  
Max Grav 1=73(LC 1), 3=73(LC 1), 4=93(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCCL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

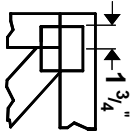
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



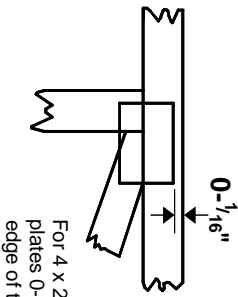
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ " from outside edge of truss.

— This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

4 X 4

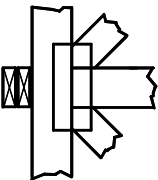
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



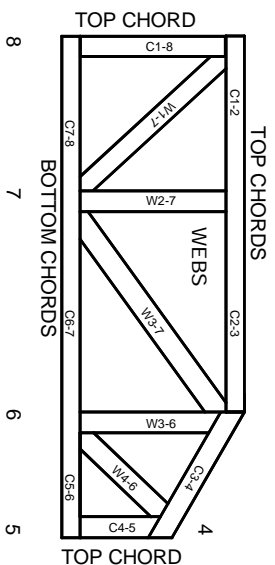
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

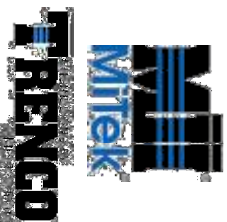
ICC-ES Reports:

ESR-1311, ESR-1352, ESR 1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.





**ROOF & FLOOR TRUSSES & BEAMS**

Reilly Road Industrial Park  
Fayetteville, N.C. 28309  
Phone: (910) 864-8787  
Fax: (910) 864-4444

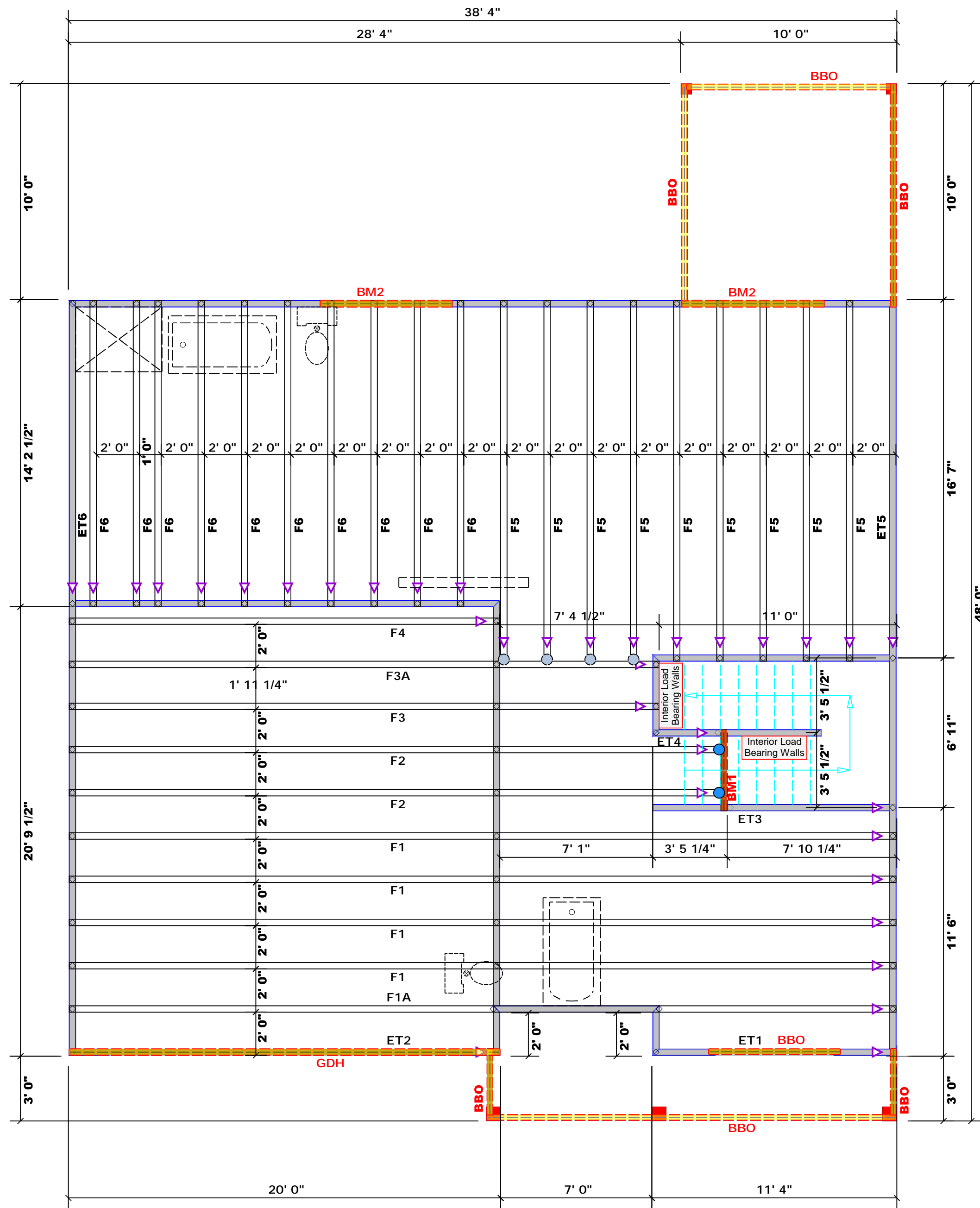
Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables ( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature David Landry  
David Landry

**LOAD CHART FOR JACK STUDS**

(BASED ON TABLES R502.5(1) & (2))  
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (LPT)	REQ'D STUDS FOR 10' LVL HEADER	END REACTION (LPT)	REQ'D STUDS FOR 10' LVL HEADER
1700	1	2550	1
3400	2	5100	2
5100	3	7650	3
6800	4	10200	4
8500	5	12750	5
10200	6	15300	6
11900	7		
13600	8		
15300	9		



Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
BM1	4' 0"	1-3/4"x 16" LVL Kerto-S	2	2	FF
BM2	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	4	FF
GDH	20' 0"	1-3/4"x 18" LVL Kerto-S	2	2	FF

1 Truss Placement Plan  
Scale: 1/4"=1'

All Walls Shown Are Considered Load Bearing

- Dimension Notes**
- All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
  - All interior wall dimensions are to face of frame wall unless noted otherwise
  - All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	MSH422	USP	4	Varies	10d/3"	10d/3"
●	HUS410	USP	2	NA	16d/3-1/2"	16d/3-1/2"

- Plumbing Drop Notes**
- Plumbing drop locations shown are NOT exact.
  - Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses.
  - Adjust spacing as needed not to exceed 24"oc.

▲ = Indicates Left End of Truss  
(Reference Engineered Truss Drawing)  
Do NOT Erect Truss Backwards

BUILDER	CITY / CO.	Harnett Co. / Harnett
JOB NAME	ADDRESS	92 Melvill Lane
PLAN	MODEL	Floor
SEAL DATE	DATE REV.	08/10/22
QUOTE #	DRAWN BY	David Landry
JOB #	SALES REP.	Marshall Naylor
	Benjamin Stout Real Estate	
	Lot 50 Liberty Meadows	
	Cypress / 2GLF, CP	
	N/A	
	J0822-4077	

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

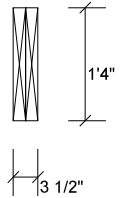
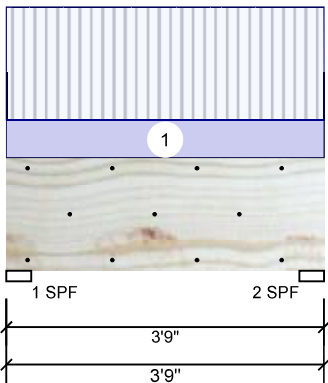


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type: Girder  
 Plies: 2  
 Moisture Condition: Dry  
 Deflection LL: 480  
 Deflection TL: 240  
 Importance: Normal - II  
 Temperature: Temp <= 100°F

Application: Floor  
 Design Method: ASD  
 Building Code: IBC/IRC 2015  
 Load Sharing: No  
 Deck: Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	345	140	0	0	0
2	Vertical	345	140	0	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	9%	140 / 345	485	L	D+L
2 - SPF	3.500"	Vert	9%	140 / 345	485	L	D+L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	354 ft-lb	1'10 1/2"	34565 ft-lb	0.010 (1%)	D+L	L
Unbraced	354 ft-lb	1'10 1/2"	29800 ft-lb	0.012 (1%)	D+L	L
Shear	409 lb	2'1 1/2"	11947 lb	0.034 (3%)	D+L	L
LL Defl inch	0.001 (L/54618)	1'10 1/2"	0.083 (L/480)	0.009 (1%)	L	L
TL Defl inch	0.001 (L/38886)	1'10 1/2"	0.166 (L/240)	0.006 (1%)	D+L	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	62 PLF	184 PLF	0 PLF	0 PLF	0 PLF	F2
	Self Weight				12 PLF					

**Notes**  
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.  
**Lumber**  
 1. Dry service conditions, unless noted otherwise  
 2. LVL not to be treated with fire retardant or corrosive

**Handling & Installation**  
 1. LVL beams must not be cut or drilled  
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals  
 3. Damaged Beams must not be used  
 4. Design assumes top edge is laterally restrained  
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding  
 This design is valid until 11/3/2024

**Manufacturer Info**  
 Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
 www.metsawood.com/us

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS

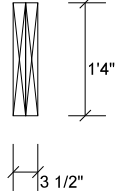
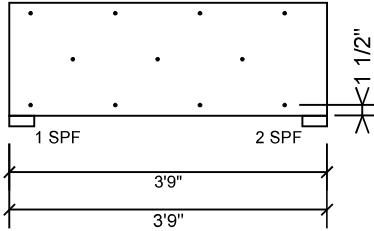


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM1 Kerto-S LVL 1.750" X 16.000" 2-Ply - PASSED**


Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	50.1 %
Load	123.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

<p><b>Notes</b></p> <p>Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.</p> <p><b>Lumber</b></p> <ol style="list-style-type: none"> <li>1. Dry service conditions, unless noted otherwise</li> <li>2. LVL not to be treated with fire retardant or corrosive chemicals</li> </ol>	<p><b>Handling &amp; Installation</b></p> <ol style="list-style-type: none"> <li>1. LVL beams must not be cut or drilled</li> <li>2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals</li> <li>3. Damaged Beams must not be used</li> <li>4. Design assumes top edge is laterally restrained</li> <li>5. Provide lateral support at bearing points to avoid lateral displacement and rotation</li> </ol>	<p>6. For flat roofs provide proper drainage to prevent ponding</p> <p>This design is valid until 11/3/2024</p>	<p><b>Manufacturer Info</b></p> <p>Metsä Wood        301 Merritt 7 Building, 2nd Floor        Norwalk, CT 06851        (800) 622-5850  <a href="http://www.metsawood.com/us">www.metsawood.com/us</a></p>	<p>Comtech, Inc.        1001 S. Reilly Road, Suite #639        Fayetteville, NC        USA        28314        810-864-TRUS</p> 
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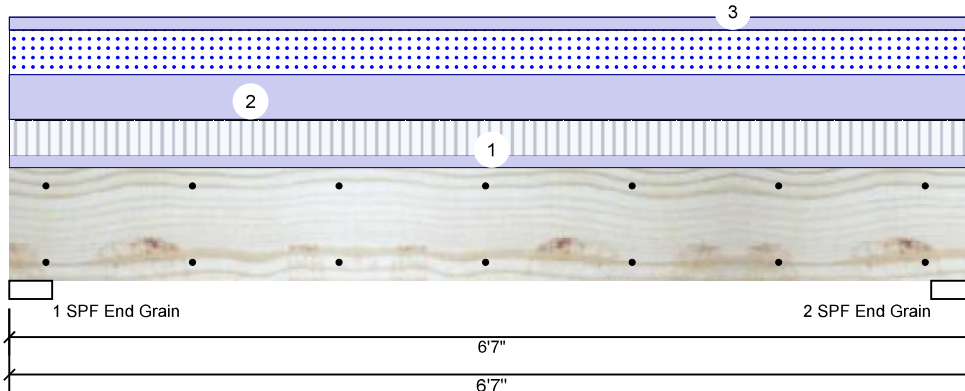


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1109	2160	1369	0	0
2	Vertical	1109	2160	1369	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	39%	2160 / 1859	4019	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	39%	2160 / 1859	4019	L	D+0.75(L+S)

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5726 ft-lb	3'3 1/2"	14423 ft-lb	0.397 (40%)	D+0.75(L+S)	L
Unbraced	5726 ft-lb	3'3 1/2"	10451 ft-lb	0.548 (55%)	D+0.75(L+S)	L
Shear	2727 lb	1' 3/4"	7943 lb	0.343 (34%)	D+0.75(L+S)	L
LL Defl inch	0.048 (L/1526)	3'3 1/2"	0.153 (L/480)	0.315 (31%)	0.75(L+S)	L
TL Defl inch	0.104 (L/706)	3'3 1/2"	0.306 (L/240)	0.340 (34%)	D+0.75(L+S)	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	113 PLF	337 PLF	0 PLF	0 PLF	0 PLF	F5
2	Uniform			Top	416 PLF	0 PLF	416 PLF	0 PLF	0 PLF	A2
3	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
	Self Weight				7 PLF					

**Notes**  
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**  
 1. Dry service conditions, unless noted otherwise  
 2. LVL not to be treated with fire retardant or corrosive

**Handling & Installation**  
 1. LVL beams must not be cut or drilled  
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals  
 3. Damaged Beams must not be used  
 4. Design assumes top edge is laterally restrained  
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**  
 Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
 www.metsawood.com/us

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS

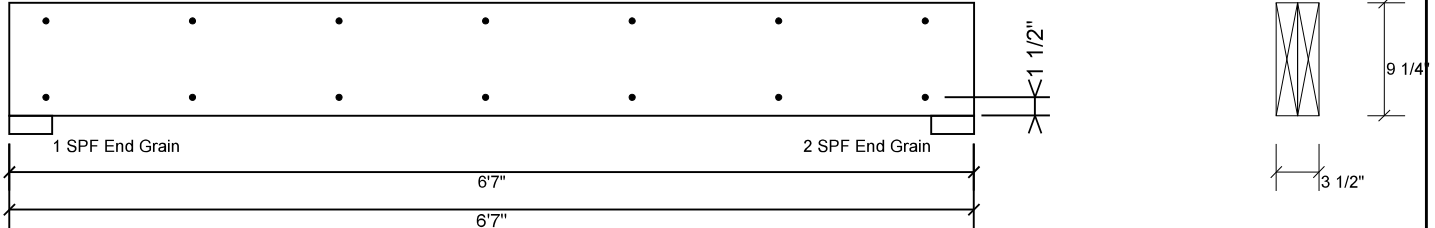


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

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 301 Merritt 7 Building, 2nd Floor  
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 (800) 622-5850  
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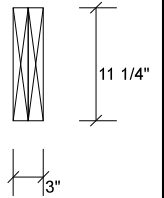
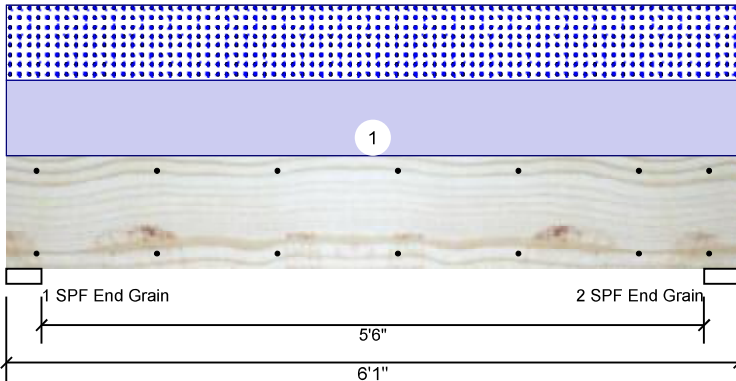


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM3 SP #2 2.000" X 12.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	240
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	1265	1265	0	0
2	Vertical	0	1265	1265	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	43%	1265 / 1265	2531	L	D+S
2 - SPF End Grain	3.500"	Vert	43%	1265 / 1265	2531	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3291 ft-lb	3' 1/2"	4548 ft-lb	0.723 (72%)	D+S	L
Unbraced	3291 ft-lb	3' 1/2"	4171 ft-lb	0.789 (79%)	D+S	L
Shear	1508 lb	1'2 3/4"	4528 lb	0.333 (33%)	D+S	L
LL Defl inch	0.019 (L/3590)	3' 1/2"	0.141 (L/480)	0.134 (13%)	S	L
TL Defl inch	0.038 (L/1795)	3' 1/2"	0.281 (L/240)	0.134 (13%)	D+S	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at end bearings.
- 7 Bottom must be laterally braced at end bearings.
- 8 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	416 PLF	0 PLF	416 PLF	0 PLF	0 PLF	A2

**Manufacturer Info**

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



This design is valid until 11/3/2024



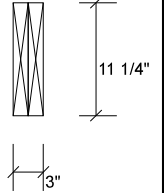
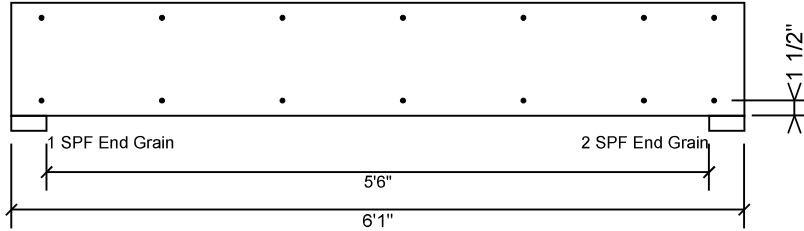


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**BM3 SP #2 2.000" X 12.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	202.6 PLF
Yield Limit per Fastener	101.3 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

<b>Manufacturer Info</b>	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS

This design is valid until 11/3/2024

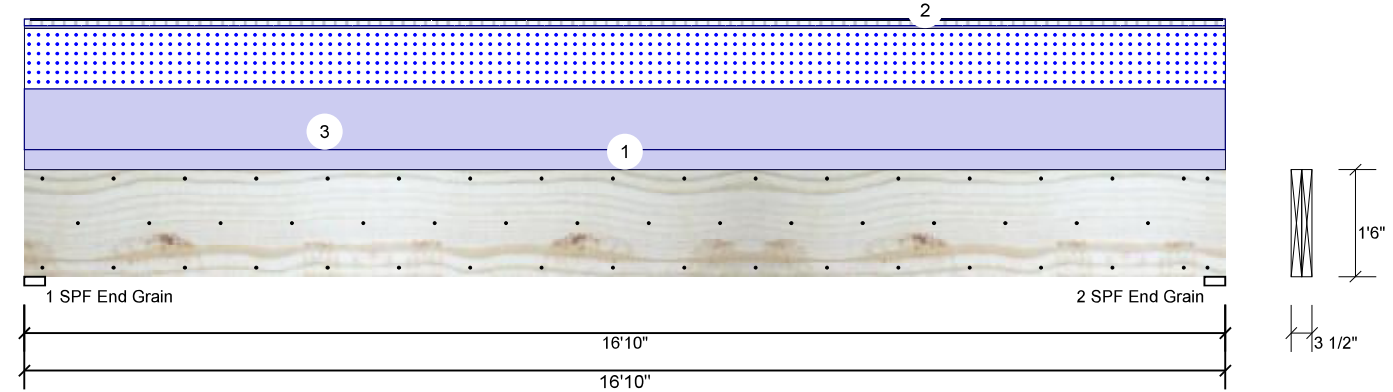


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**GDH Kerto-S LVL 1.750" X 18.000" 2-Ply - PASSED**

Level: Level



**Member Information**

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal - II
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked
Ceiling:	Gypsum 1/2"

**Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	337	4309	3055	0	0
2	Vertical	337	4309	3055	0	0

**Bearings**

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	72%	4309 / 3055	7365	L	D+S
2 - SPF End Grain	3.500"	Vert	72%	4309 / 3055	7365	L	D+S

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	29403 ft-lb	8'5"	49428 ft-lb	0.595 (59%)	D+S	L
Unbraced	29403 ft-lb	8'5"	29435 ft-lb	0.999 (100%)	D+S	L
Shear	5818 lb	1'9 1/2"	15456 lb	0.376 (38%)	D+S	L
LL Defl inch	0.196 (L/1005)	8'5 1/16"	0.410 (L/480)	0.478 (48%)	S	L
TL Defl inch	0.472 (L/417)	8'5 1/16"	0.547 (L/360)	0.864 (86%)	D+S	L

**Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 4'4 5/8" o.c.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Tie-In	0-0-0 to 16-10-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor
3	Uniform			Top	363 PLF	0 PLF	363 PLF	0 PLF	0 PLF	A1
	Self Weight				14 PLF					

**Notes**  
 Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.  
**Lumber**  
 1. Dry service conditions, unless noted otherwise  
 2. LVL not to be treated with fire retardant or corrosive chemicals

- Handling & Installation**
1. LVL beams must not be cut or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
  3. Damaged Beams must not be used
  4. Design assumes top edge is laterally restrained
  5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding  
 This design is valid until 11/3/2024

**Manufacturer Info**  
 Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
 www.metsawood.com/us

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS



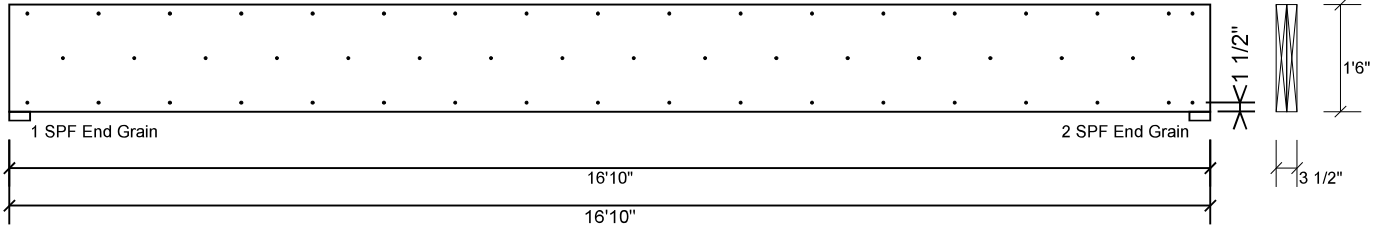


Client: Benjamin Stout Real Estate  
 Project: Cypress  
 Address: 92 Melvill Lane

Date: 8/10/2022  
 Input by: David Landry  
 Job Name: Lot 50 Liberty Meadows  
 Project #: J0822-4075

**GDH Kerto-S LVL 1.750" X 18.000" 2-Ply - PASSED**

Level: Level



**Multi-Ply Analysis**

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6".

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

**Notes**

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

**Lumber**

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

**Manufacturer Info**

Metsä Wood  
 301 Merritt 7 Building, 2nd Floor  
 Norwalk, CT 06851  
 (800) 622-5850  
[www.metsawood.com/us](http://www.metsawood.com/us)

Comtech, Inc.  
 1001 S. Reilly Road, Suite #639  
 Fayetteville, NC  
 USA  
 28314  
 910-864-TRUS





RE: J0822-4077  
Lot 50 Liberty Meadows

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Benjamin Stout Real Estate    Project Name: J0822-4077  
Lot/Block: 50    Model: Cypress  
Address: 92 Melvill Lane    Subdivision: Liberty Meadows  
City:    State: NC

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: IRC2015/TPI2014    Design Program: MiTek 20/20 8.3  
Wind Code: N/A    Wind Speed: N/A mph  
Roof Load: N/A psf    Floor Load: 55.0 psf

This package includes 14 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E16497613	ET1	12/23/2021
2	E16497614	ET2	12/23/2021
3	E16497615	ET3	12/23/2021
4	E16497616	ET4	12/23/2021
5	E16497617	ET5	12/23/2021
6	E16497618	ET6	12/23/2021
7	E16497619	F1	12/23/2021
8	E16497620	F1A	12/23/2021
9	E16497621	F2	12/23/2021
10	E16497622	F3	12/23/2021
11	E16497623	F3A	12/23/2021
12	E16497624	F4	12/23/2021
13	E16497625	F5	12/23/2021
14	E16497626	F6	12/23/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



December 23, 2021



Job J0822-4077	Truss ET2	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497614
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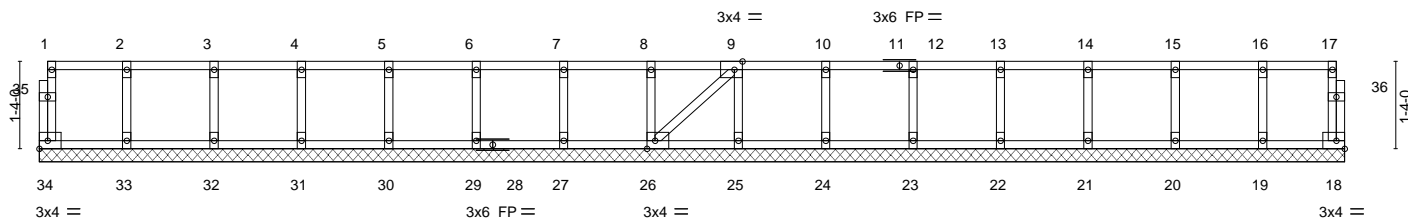
Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:25 2021 Page 1  
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0-1/8

0-1/8

Scale = 1:33.1



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-11-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-3-0

Plate Offsets (X,Y)-- [9:0-1-8,Edge], [26:0-1-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	18	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 90 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 19-11-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 31, 30, 29, 27, 26, 25, 24, 23, 22, 21, 20, 19

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932



Job J0822-4077	Truss ET3	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497615
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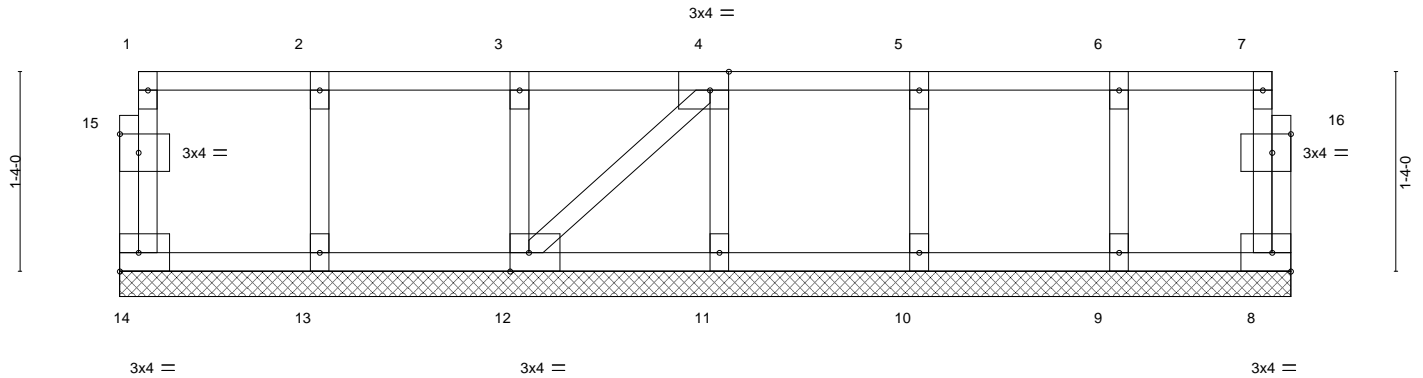
Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:26 2021 Page 1  
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0'-1-8"

0'-1-8"

Scale = 1:14.5



	1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	7-9-12
Plate Offsets (X,Y)--	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-1-12
	[4:0-1-8,Edge], [12:0-1-8,Edge], [15:0-1-8,0-1-8], [16:0-1-8,0-1-8]					

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P							
							Weight: 39 lb	FT = 20%F, 11%E	

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 7-9-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss ET4	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497616
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Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:26 2021 Page 1  
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3x4 =

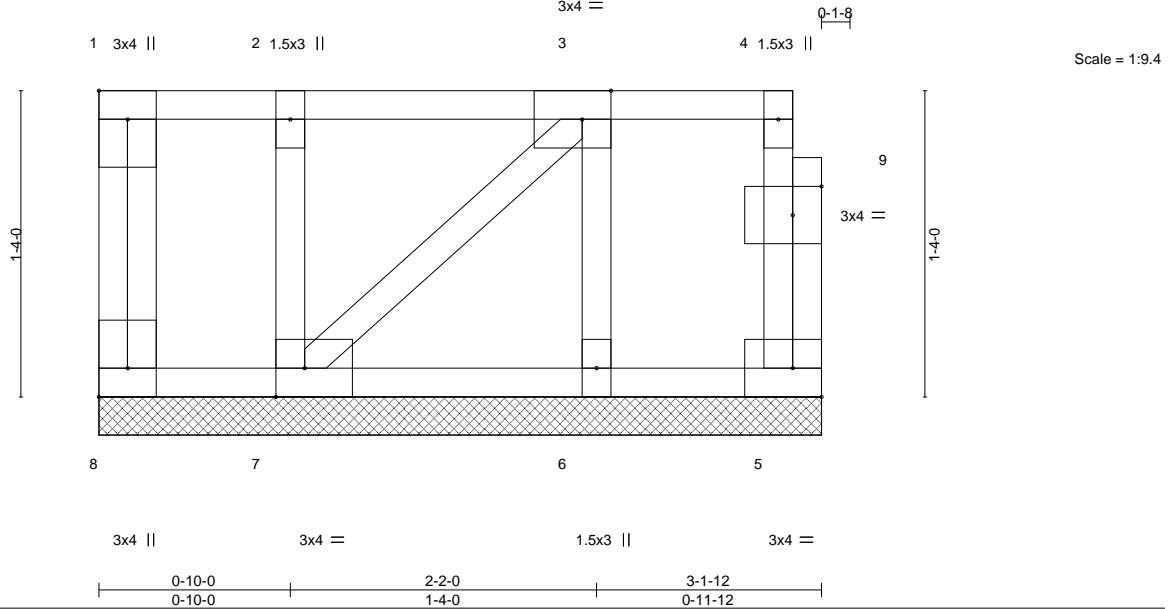


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [7:0-1-8,Edge], [8:Edge,0-1-8], [9:0-1-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.01	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-P					Weight: 21 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-1-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 3-1-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 8, 5, 7, 6

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Plates checked for a plus or minus 1 degree rotation about its center.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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Edenton, NC 27932

Job J0822-4077	Truss ET5	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497617
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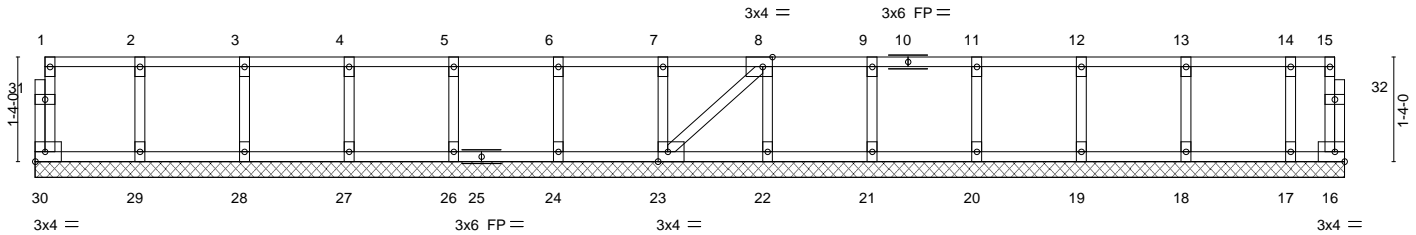
Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:27 2021 Page 1  
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0-1/8

0-1/8

Scale = 1:27.6



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	16-8-4
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-8-4

Plate Offsets (X,Y)-- [8:0-1-8,Edge], [23:0-1-8,Edge]												
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>		
TCLL 40.0	Plate Grip DOL 1.00		TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190		
TCDL 10.0	Lumber DOL 1.00		BC 0.01	Vert(CT)	n/a	-	n/a	999				
BCLL 0.0	Rep Stress Incr YES		WB 0.03	Horz(CT)	0.00	16	n/a	n/a				
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 77 lb	FT = 20%F, 11%E		

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

All bearings 16-8-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 24, 23, 22, 21, 20, 19, 18, 17

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

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818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss ET6	Truss Type GABLE	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497618
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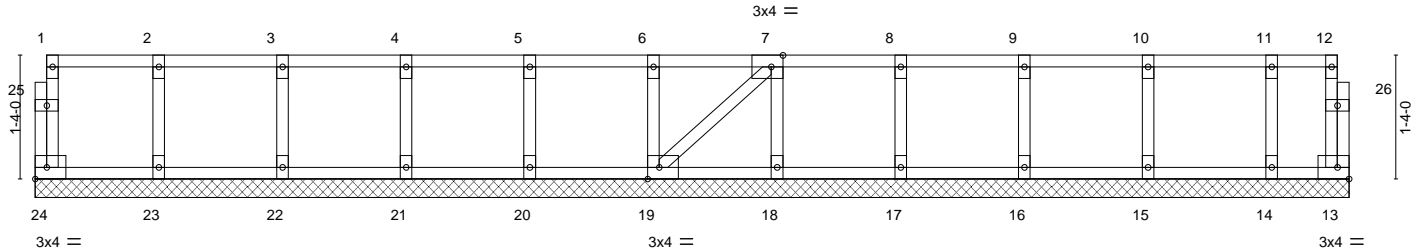
Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:27 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-6rQ6bN3Y8EiuDUJ1EnOIXBJAFiqRL3ClydY0Dy66po

0'-1'-8"

0'-1'-8"

Scale = 1:23.4



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-2-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-10-0

Plate Offsets (X,Y)-- [7:0-1-8,Edge], [19:0-1-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	13	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						Weight: 66 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 14-2-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Plates checked for a plus or minus 1 degree rotation about its center.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 5) Gable studs spaced at 1'-4-0 oc.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss F1	Truss Type Floor	Qty 4	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497619
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Comtech, Inc. Fayetteville, NC - 28314.

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:29 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-3EXs035ogsycToTQMCRmccOIkVJJo92Qx1f56y66pm

0-1-8

1-3-0

2-5-12

2-3-4 1-6-0

0-1-8  
Scale = 1:65.1

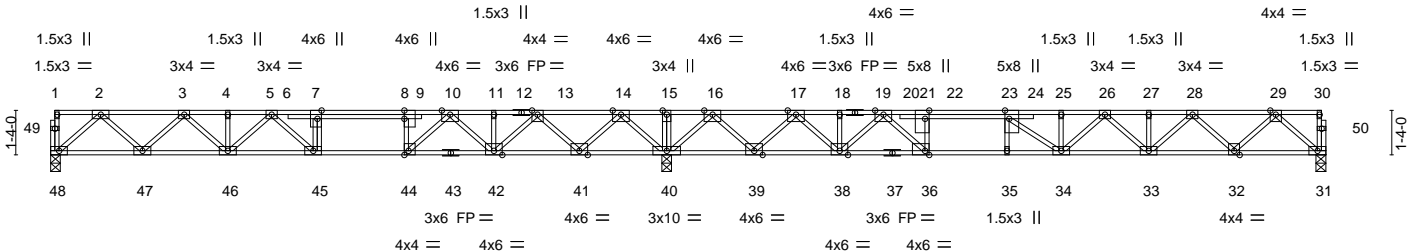


Plate Offsets (X,Y)--	[7:0-3-0,Edge], [8:0-3-0,0-0], [22:0-3-0,Edge], [23:0-3-0,Edge], [36:0-1-8,Edge], [44:0-1-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.96	Vert(LL)	-0.27	34-35	>864	MT20	244/190
TCDL 10.0	1.00	BC 0.81	Vert(CT)	-0.36	34-35	>655		
BCLL 0.0	YES	WB 0.71	Horz(CT)	0.06	31	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 211 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 (flat)	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1 (flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 (flat)	

**REACTIONS.** (size) 48=0-3-8, 40=0-3-8, 31=0-3-8  
Max Grav 48=871(LC 3), 40=2516(LC 1), 31=936(LC 4)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD**  
2-3=-1560/0, 3-4=-2546/0, 4-5=-2546/0, 5-7=-2871/114, 7-8=-2871/105,  
8-10=-2888/105, 10-11=-1673/754, 11-13=-1673/754, 13-14=-128/1407, 14-15=0/3309,  
15-16=0/3309, 16-17=-64/1187, 17-18=-1767/545, 18-20=-1767/545, 20-22=-3258/0,  
22-23=-3236/0, 23-25=-3338/0, 25-26=-3338/0, 26-27=-2818/0, 27-28=-2818/0,  
28-29=-1704/0

**BOT CHORD**  
47-48=0/939, 46-47=0/2157, 45-46=0/2787, 44-45=-105/2871, 42-44=-508/2171,  
41-42=-1069/990, 40-41=-1989/0, 39-40=-1925/0, 38-39=-852/1004, 36-38=-294/2360,  
35-36=0/3236, 34-35=0/3236, 33-34=0/3146, 32-33=0/2363, 31-32=0/1015

**WEBS**  
2-48=1248/0, 2-47=0/864, 3-47=-830/0, 3-46=-14/529, 14-40=-1757/0, 14-41=0/1364,  
13-41=-1322/0, 13-42=0/1058, 10-42=-801/0, 10-44=0/1338, 5-46=-328/67,  
5-45=-530/142, 7-45=-88/295, 8-44=-798/0, 29-31=-1348/0, 29-32=0/959, 28-32=-916/0,  
28-33=0/619, 26-33=-445/18, 26-34=-20/262, 16-40=-1842/0, 16-39=0/1446,  
17-39=-1403/0, 17-38=0/1136, 20-38=-907/0, 20-36=0/1484, 22-36=-884/0,  
25-34=-351/0, 23-34=-99/656

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x6 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.



December 23, 2021

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932





Job J0822-4077	Truss F1A	Truss Type Floor	Qty 1	Ply 1	Lot 50 Liberty Meadows E16497620 Job Reference (optional)
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Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:31 2021 Page 2  
ID:1GKHPtsUBRSV9DyCFb7Gmz8LdV-?cfdRI72CTCJi6doTcTEh1Th7J0hHjGKtFWm9?y66pk

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 10=-69 12=-69 8=-69 55=-69

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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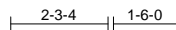


818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss F2	Truss Type Floor	Qty 2	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497621
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:32 2021 Page 1  
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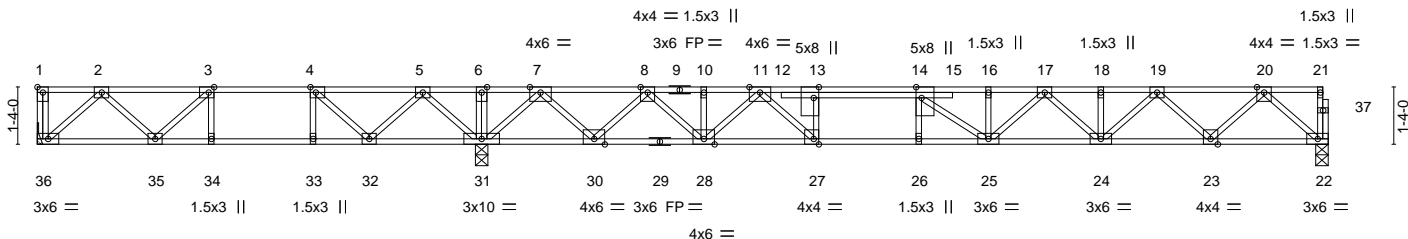


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [3:0-1-8,Edge], [4:0-1-8,Edge], [13:0-3-0,Edge], [14:0-3-0,Edge], [27:0-1-8,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.77	Vert(LL)	-0.29 25-26	>821	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.85	Vert(CT)	-0.39 25-26	>604	360		
BCLL 0.0	Rep Stress Incr YES	WB 0.63	Horz(CT)	0.06 22	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S					Weight: 163 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1(flat)	TOP CHORD Structural wood sheathing directly applied or 5-10-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.1(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 36=Mechanical, 31=0-3-8, 22=0-3-8  
Max Uplift 36=-26(LC 4)  
Max Grav 36=490(LC 3), 31=1947(LC 1), 22=989(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-721/150, 3-4=-860/441, 4-5=-419/882, 5-6=0/1852, 6-7=0/1852, 7-8=-806/0, 8-10=-2401/0, 10-11=-2401/0, 11-13=-3738/0, 13-14=-3719/0, 14-16=-3669/0, 16-17=-3669/0, 17-18=-3045/0, 18-19=-3045/0, 19-20=-1819/0  
BOT CHORD 35-36=-18/514, 34-35=-441/860, 33-34=-441/860, 32-33=-441/860, 31-32=-1193/33, 30-31=-576/0, 28-30=0/1695, 27-28=0/2937, 26-27=0/3719, 25-26=0/3719, 24-25=0/3432, 23-24=0/2533, 22-23=0/1075  
WEBS 2-36=685/24, 2-35=-183/287, 3-35=-189/395, 5-31=-990/0, 5-32=0/752, 4-32=-948/0, 4-33=0/301, 3-34=-264/0, 7-31=-1699/0, 7-30=0/1314, 8-30=-1280/0, 8-28=0/1005, 11-28=-774/0, 11-27=0/1261, 13-27=-758/0, 20-22=-1428/0, 20-23=0/1035, 19-23=-993/0, 19-24=0/697, 17-24=-526/0, 17-25=0/322, 16-25=-250/79, 14-25=-439/328

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Plates checked for a plus or minus 1 degree rotation about its center.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 36.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.



December 23, 2021

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Job J0822-4077	Truss F3	Truss Type Floor	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497622
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Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:33 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-x?nNsR8J4S1xPmBb1VimSZ\_l7gheUdLZ?sEty66pi

0-1-8



0-1-8  
Scale = 1:45.3

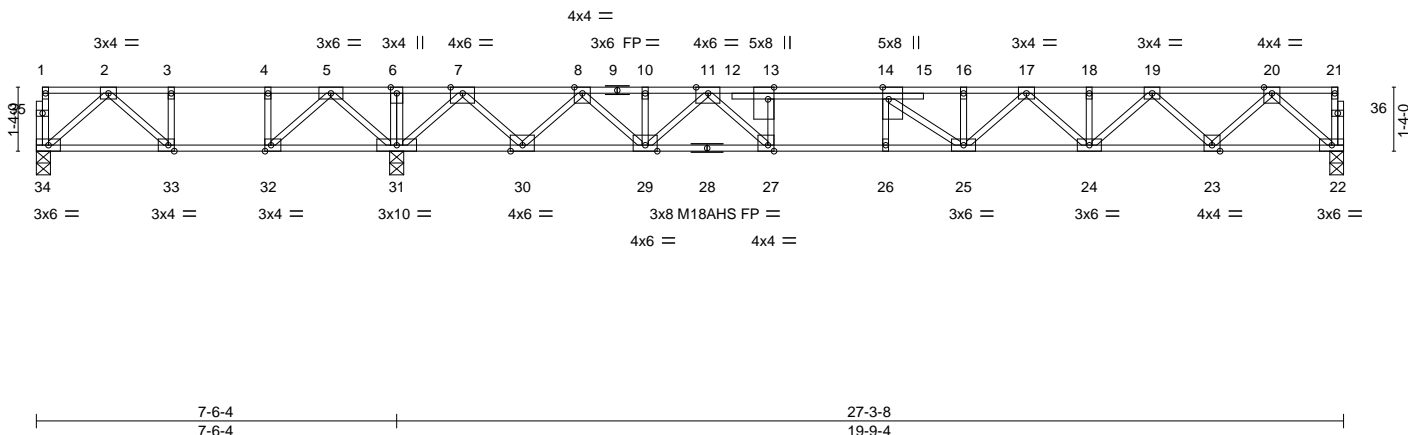


Plate Offsets (X,Y)-- [13:0-3-0,Edge], [14:0-3-0,Edge], [27:0-1-8,Edge], [32:0-1-8,Edge], [33:0-1-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.85	Vert(LL)	-0.29 25-26	>817	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.85	Vert(CT)	-0.39 25-26	>598	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.06 22	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 149 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-9-9 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 34=0-3-8, 31=0-3-8, 22=0-3-8  
Max Uplift 34=-112(LC 4)  
Max Grav 34=328(LC 3), 31=1806(LC 1), 22=996(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-381/510, 3-4=-381/510, 4-5=-381/510, 5-6=0/1504, 6-7=0/1504, 7-8=-907/0, 8-10=-2479/0, 10-11=-2479/0, 11-13=-3798/0, 13-14=-3780/0, 14-16=-3711/0, 16-17=-3711/0, 17-18=-3074/0, 18-19=-3074/0, 19-20=-1833/0  
BOT CHORD 33-34=-159/298, 32-33=-510/381, 31-32=-1003/24, 29-30=0/1785, 27-29=0/3008, 26-27=0/3780, 25-26=0/3780, 24-25=0/3468, 23-24=0/2554, 22-23=0/1082  
WEBS 2-34=-393/211, 2-33=-476/113, 5-31=-838/0, 5-32=0/903, 4-32=-461/0, 7-31=-1673/0, 7-30=0/1302, 8-30=-1244/0, 8-29=0/966, 20-22=-1438/0, 20-23=0/1045, 19-23=-1002/0, 19-24=0/706, 17-24=-536/0, 17-25=0/330, 11-29=-743/0, 11-27=0/1229, 13-27=-738/0, 14-25=-493/278

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 4) Plates checked for a plus or minus 1 degree rotation about its center.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 34.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.



December 23, 2021

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818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss F3A	Truss Type Floor	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497623
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:34 2021 Page 1  
ID:1GKHPptsUBRSV9DyCfB7Gmz8LdV-PBL3n9xUOauZLN8l0xJg5A6W0QU42nZDKmKy66ph

0-1-8



0-1-8  
Scale = 1:46.3

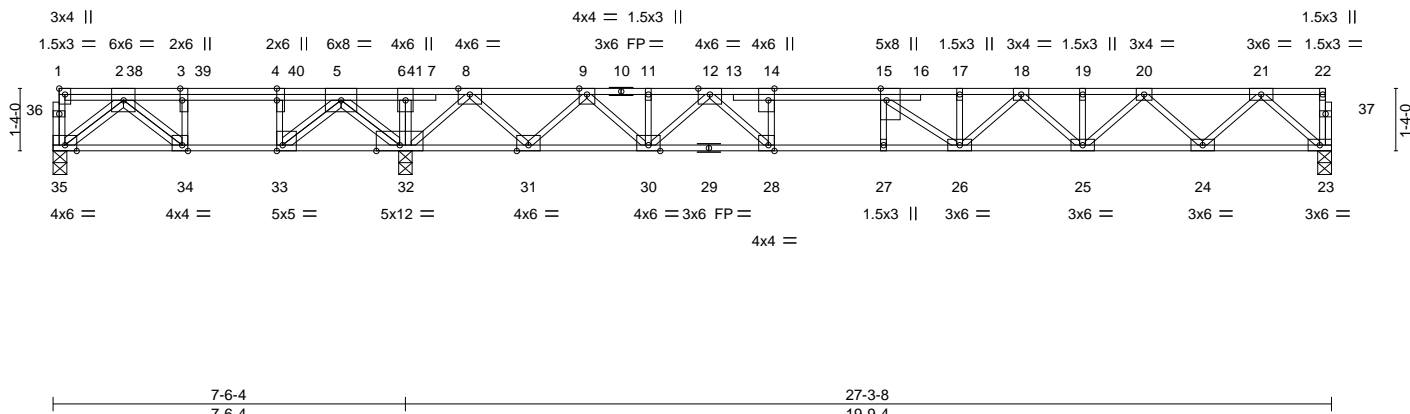


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-3-0,Edge], [4:0-3-0,Edge], [14:0-3-0,Edge], [15:0-3-0,Edge], [28:0-1-8,Edge], [33:0-1-8,Edge], [34:0-1-8,Edge]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.79	Vert(LL)	-0.25 26-27	>928	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.88	Vert(CT)	-0.35 26-27	>677	360		
BCLL 0.0	Rep Stress Incr	NO	WB 0.66	Horz(CT)	0.06 23	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 169 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1 (flat)  
BOT CHORD 2x4 SP No.1 (flat)  
WEBS 2x4 SP No.3 (flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 32-33,31-32,30-31.

**REACTIONS.**

(size) 35=0-3-8, 32=0-3-8, 23=0-3-8  
Max Grav 35=1662(LC 3), 32=3831(LC 1), 23=915(LC 7)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2360/0, 3-4=-2360/0, 4-5=-2360/0, 5-6=0/2626, 6-8=0/2626, 8-9=0/427, 9-11=-1518/0, 11-12=-1518/0, 12-14=-3071/0, 14-15=-3047/0, 15-17=-3209/0, 17-18=-3209/0, 18-19=-2730/0, 19-20=-2730/0, 20-21=-1659/0  
BOT CHORD 34-35=0/1750, 33-34=0/2360, 32-33=-583/893, 31-32=-1290/0, 30-31=-1077/36, 28-30=0/2135, 27-28=0/3047, 26-27=0/3047, 25-26=0/3034, 24-25=0/2296, 23-24=0/991  
WEBS 6-32=-874/0, 2-35=-2265/0, 2-34=-2/810, 5-32=-2781/0, 5-33=0/2696, 4-33=-1680/0, 3-34=-536/0, 8-32=-1779/0, 8-31=0/1395, 9-31=-1342/0, 9-30=0/1070, 21-23=-1317/0, 21-24=0/929, 20-24=-886/0, 20-25=0/589, 18-25=-413/0, 17-26=-297/27, 12-30=-845/0, 12-28=0/1364, 14-28=-816/0, 15-26=-269/479

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 878 lb down at 1-2-4, 878 lb down at 3-2-4, and 878 lb down at 5-2-4, and 857 lb down at 7-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 23-35=-10, 1-22=-100  
Concentrated Loads (lb)  
Vert: 38=-798(B) 39=-798(B) 40=-798(B) 41=-798(B)



December 23, 2021

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818 Soundside Road  
Edenton, NC 27932

Job J0822-4077	Truss F4	Truss Type Floor	Qty 1	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497624
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:35 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-tOv7G6AZFijlBjwaiSYAstelhwOnDZ2wotUzImy66pg

0-1-8



0-1-8  
Scale = 1:32.8

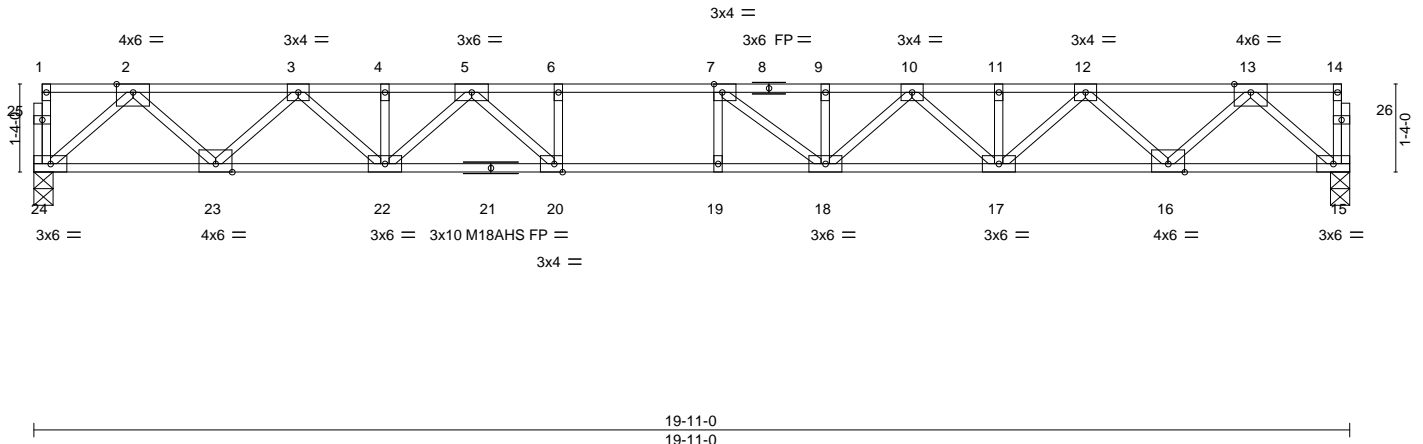


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [20:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.74	Vert(LL) -0.35 18-19 >683 480	M18AHS	186/179
BCLL 0.0	Lumber DOL 1.00	WB 0.55	Vert(CT) -0.47 18-19 >498 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.07 15 n/a n/a		
	Code IRC2015/TPI2014			Weight: 105 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat) \*Except\*  
 15-21: 2x4 SP 2400F 2.0E(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 24=0-3-8, 15=0-3-8  
 Max Grav 24=1075(LC 1), 15=1075(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2007/0, 3-4=-3409/0, 4-5=-3409/0, 5-6=-4323/0, 6-7=-4323/0, 7-9=-4232/0,  
 9-10=-4232/0, 10-11=-3412/0, 11-12=-3412/0, 12-13=-2005/0  
 BOT CHORD 23-24=0/1174, 22-23=0/2804, 20-22=0/3891, 19-20=0/4323, 18-19=0/4323, 17-18=0/3894,  
 16-17=0/2808, 15-16=0/1172  
 WEBS 2-24=-1560/0, 2-23=0/1159, 3-23=-1108/0, 3-22=0/823, 5-22=-655/0, 5-20=0/865,  
 6-20=-395/0, 13-15=-1558/0, 13-16=0/1159, 12-16=-1116/0, 12-17=0/821, 10-17=-655/0,  
 10-18=0/460, 9-18=-251/64, 7-18=-606/291

**NOTES-**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 4) Plates checked for a plus or minus 1 degree rotation about its center.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



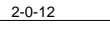
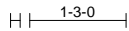
818 Soundside Road  
 Edenton, NC 27932

Job J0822-4077	Truss F5	Truss Type Floor	Qty 9	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497625
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:36 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-MaSWUSAB0?rcotVmGA3PO5BaXKgVy2A41XDWrCy66pf

0-1-8



0-1-8  
Scale = 1:28.2

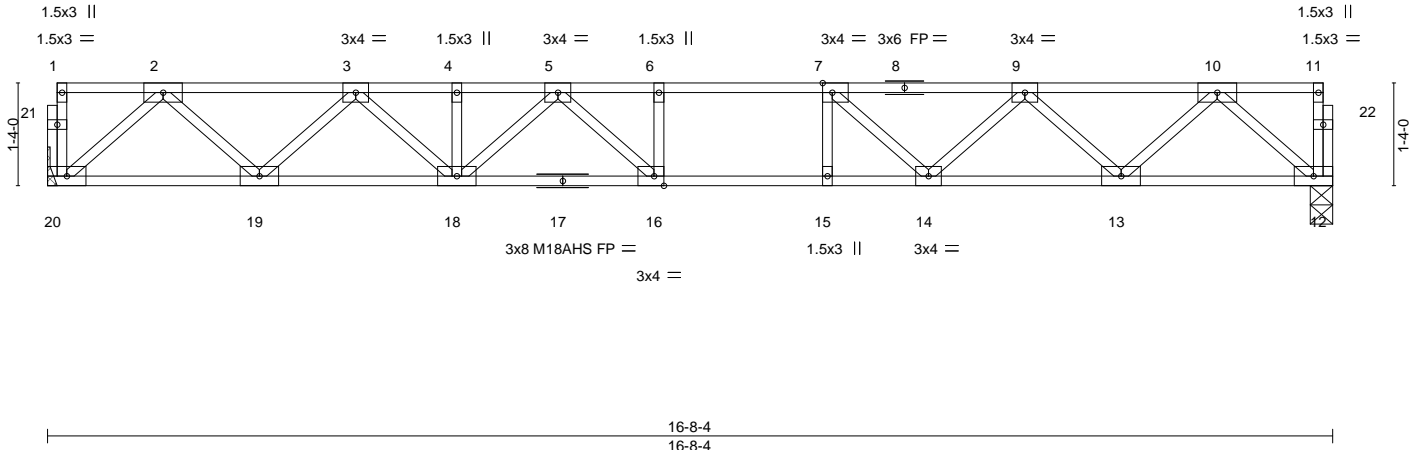


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [16:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.54	Vert(LL)	-0.22 16-18	>892	480	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.91	Vert(CT)	-0.30 16-18	>666	360	M18AHS	186/179
BCLL 0.0	Rep Stress Incr YES	WB 0.43	Horz(CT)	0.05 12	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 87 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1 (flat)  
BOT CHORD 2x4 SP No.1 (flat)  
WEBS 2x4 SP No.3 (flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 20=Mechanical, 12=0-3-8  
Max Grav 20=898(LC 1), 12=898(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1619/0, 3-4=-2661/0, 4-5=-2661/0, 5-6=-3022/0, 6-7=-3022/0, 7-9=-2612/0, 9-10=-1624/0  
BOT CHORD 19-20=0/970, 18-19=0/2244, 16-18=0/2936, 15-16=0/3022, 14-15=0/3022, 13-14=0/2243, 12-13=0/970  
WEBS 2-20=-1289/0, 2-19=0/903, 3-19=-869/0, 3-18=0/567, 10-12=-1289/0, 10-13=0/909, 9-13=-861/0, 9-14=0/557, 5-18=-374/0, 5-16=-160/451, 7-14=-702/0

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 3x6 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Refer to girder(s) for truss to truss connections.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932



Job J0822-4077	Truss F6	Truss Type Floor	Qty 10	Ply 1	Lot 50 Liberty Meadows Job Reference (optional)	E16497626
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Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Dec 23 10:04:36 2021 Page 1  
ID:1GKHPptsUBRSV9DyCFb7Gmz8LdV-MaSWUSAB0?rootVmGA3PO5BaOKiRy3Y41XDWrCy66pf

0-1-8



0-1-8  
Scale: 1/2"=1'

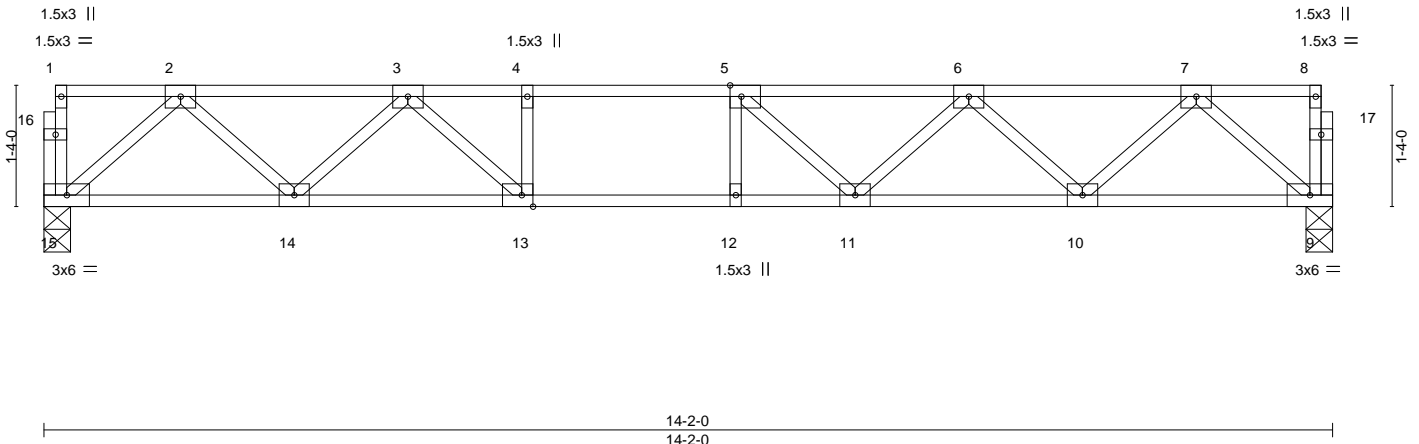


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [13:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.78	Vert(LL) -0.15 11-12 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.34	Vert(CT) -0.20 11-12 >854 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 73 lb	FT = 20%F, 11%E

**LUMBER-**

TOP CHORD 2x4 SP No.1 (flat)  
BOT CHORD 2x4 SP No.1 (flat)  
WEBS 2x4 SP No.3 (flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 15=0-3-8, 9=0-3-8  
Max Grav 15=759(LC 1), 9=759(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1309/0, 3-4=-2153/0, 4-5=-2153/0, 5-6=-2019/0, 6-7=-1326/0  
BOT CHORD 14-15=0/813, 13-14=0/1799, 12-13=0/2153, 11-12=0/2153, 10-11=0/1821, 9-10=0/806  
WEBS 2-15=-1080/0, 2-14=0/690, 3-14=-683/0, 3-13=0/649, 7-9=-1070/0, 7-10=0/723,  
6-10=-689/0, 6-11=0/352, 5-11=-383/24, 4-13=-299/0

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x4 MT20 unless otherwise indicated.
- Plates checked for a plus or minus 1 degree rotation about its center.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



December 23, 2021

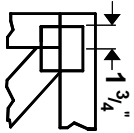
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



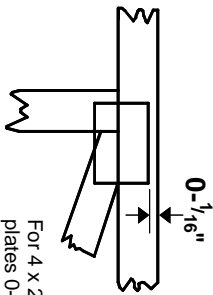
818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ " from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in **MiTek 20/20** software or upon request.

## PLATE SIZE

4 X 4

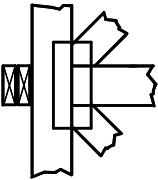
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



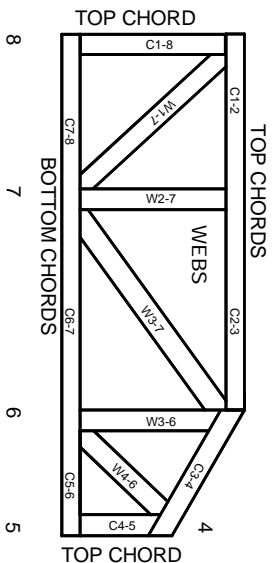
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

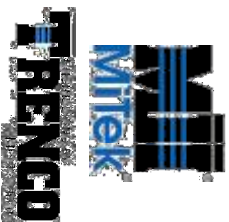
ICC-ES Reports:

ESR-1311, ESR-1352, ESR 1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.